

ABSTRACT

A thermosyphon device is provided for both cooling and warming (heating) enabling, by a simple structure, the easy installation operation, elimination of the need of adjusting operation, a reduction in manufacturing cost, and an increase in heat transportation efficiency. A large number of circumferentially-formed narrow concave grooves (G) are formed in the inner wall surface (121) of an outer tube (12) and in the outer wall surface (141) of an inner tube (14) facing the working space (S) of a double tube type thermosyphon disposed in the lateral direction. An operating liquid (Q) is evaporated at the evaporating portion of either of the inner wall surface (121) of the outer tube and the outer wall surface (141) of the inner tube and is condensed on the other wall surface while being raised in the circumferential direction of the wall surfaces (121, 141) by a capillary attraction via the narrow recessed grooves (G) to cool or heat the outer area of the outer tube. Depending on whether the surroundings of the outer tube are cooled or heated, a thermal source fluid of refrigerant or heat medium is supplied into the inner tube.